



CONTEXT

BELA-BELA

Settlement Genesis and Historical Development

Chapter three indicates an analysis of the Warmbaths fountain and the natural environment as settlement genesis to Bela-Bela. A study of the historical development of the town is made, which is proceeded by the historical development of the resort. The problem statement is derived from the condition arising from the historical and urban landscape and concludes the

chapter.



THE FOUNTAIN AND THE ENVIRONMENT

GEOMORPHOLOGY

To the west of the Springbok flats, where the flat horizontal planes of the region meet the bulging topography of the Waterberg range at the Hoekberge, is a local presence of deep geological structures such as folds, faults and dykes (Olivier and Jonker, 2013: 20-21). These serve as the conduit to the Warmbaths thermal spring that continuously provides "circulating artesian systems where rain and surface water descends to depth, is heated by the rocks, before rapidly returning to the surface without losing much heat" (Olivier and Jonker, 2013: 20-21 & Kent, 1969).

The water to the springs in the Limpopo Soutpansberg depositional basin rises along wall-like bodies of impermeable rock (dykes) that impede the free movement of ground water (Olivier and Jonker, 2013: 20-21 & Ashton and Schoeman, 1986). These impermeable sections of fault zones, folds or dykes may restrict the direct percolation of water from the intake area to the spring eye, forcing the hot groundwater to the surface (Olivier and Jonker, 2013: 20-21 & Kent, 1969).

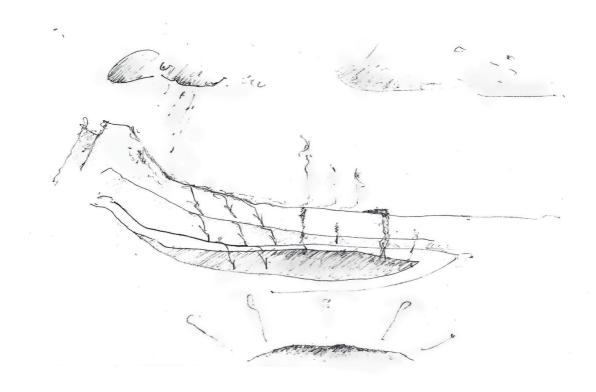


Figure 3.1	•	•	•	Figure 3.2
Waterberg				Geomorphology and Hydrology
(Limpopo tourism Agency, 2015)	•	•	•	(Author, 2015)



TOPOGRAPHY

To the south, downslope of where the fountain surfaces, a marshland existed. This marshland was drained and set aside as a nature reserve with the establishment of the town that developed radially to the north from the fountain. The reserve, along with the Springbok Flats and the Hoekeberge, form part of what is demarcated as the larger Waterberg district. This district is the only Savanna Biosphere Reserve in Southern Africa and "features a mix of rock formations, formed over millions of years, significant San (Bushmen) rock art sites and abundant bushveld plains that support a diverse array of fauna and flora" (southafrica.net, 2015).

The Waterberg district is the first region in the northern part of South Africa to be named as a Biosphere Reserve by UNESCO. A biosphere is an area designated by UNESCO'S Man and Biosphere (MAB) program that "aims to establish a scientific basis for the improvement of relationships between people and their environments" (Unesco.org, 2015). MAB combines the sciences, economics and education to improve human livelihoods, to foster their cultural values and promote a harmonious integration with the remarkable natural environment as to conserve biological diversity (Ibid).

HYDROLOGY AND CLIMATE

The Waterberg Water Mountain), as the name implies, serves as an important catchment area and reservoir to the enveloping arid region (environment.gov.za, 2015). Several perennial streams, concentrated in the mountainous area, flows south towards the town. This flow and the downstream drainage from the facilities at the fountain, traditionally known as "Bad se loop", meet the Plat River, which abuts the town to the west, a few kilometres to the south. The drainage is naturally filtered through retention dams and natural processes as it traverses the resort and the nature reserve to the south. The average rainfall in Bela-Bela for a year is 625 mm with dry winters and most of the precipitation during December, averaging 122 mm (en.climate-data. org, 2015).

In Bela-Bela, a local steppe climate presides (en.climate-data.org, 2015) with little rainfall and is considered to be Bsh (Arid), according to the CSIR Köppen-Geiger climate classification Map for South Africa. The average annual temperature is 18.7 °C with January being the warmest, at an average of 23.3 ° C, and June being the coldest month, with temperatures averaging 11.7 °C (en.climate-data.org, 2015). At the Hoekeberge to the north of Bela-Bela, the climate changes to Cwb or Temperate Highland Tropical. This produces a variety of habitats and landscapes, and a vast diversity therefore characterises the flora and fauna.

Although a considerable deviation between daily maximum and minimum temperatures exists, the climatic conditions present a pleasant outdoors environment with clear skies, scenic views and shady coverage by the unique Bushveld vegetation.



FLORA & AGRICULTURE

The vegetation is predominantly different veld types. Sour Bushveld and Mixed Bushveld, which are typical Savanna vegetation types, as well as the Waterberg Moist Mountain Bushveld (environment.gov.za, 2015). Amongst other, the Acacia species thrive here and are an identifiable characteristic of the environment. More than 500 plant species grow in the Waterberg region and is considered a 'floral hotspot' with a portion being endemic to only this area and other parts in Namibia (Waterberg Wilderness, 2015). Along depressions in the bulging topography and rock formations, water fountains and floral habitats preside with aquatic plants biodiversity. "The Waterberg District presents a rich rural environment with practically every form of farming practiced here" (Nylstroom and Warmbaths and Waterberg district, 1931: 16). Flowers, sunflowers, cotton, mielies and peanuts are cultivated in the Bela-Bela and Modimolle areas, while tropical fruit, such as bananas, litchis, pineapples, mangoes and pawpaws, as well as a variety of nuts, are grown in the Tzaneen and Makhado areas (southafrica.info, 2015). Located to the southeast of the town is the Toowoomba agricultural research centre of the Limpopo Department of Agriculture which provides valuable research towards progressive and sustainable agricultural practices for Limpopo and South Africa. **FAUNA** Because of the rich vegetation of trees, the dry woodlands are home to elephants, black rhino, giraffe, springbok, steenbok, impala, sable and hartebeest (Rabbaney & Masolotate, 2003: 35). Thus the region is rich with eco-tourism, game conservation and hunting farms, of which many are accessed by traversing the town of Bela-Bela. **TOURISM** Limpopo is known as the "garden of South Africa" (southafrica.info, 2015). The Unique natural environment and conservation farms; a multitude of mineral springs and recreation facilities; and 80% of South Africa's hunting industry make the region a traditionally popular tourist destination. Bela-Bela serves as the gateway to this natural hinterland with eco-tourism initiatives extending into the natural environment. Figure 3.4 The Waterberg beyond the Springbok Fats

(Author 2015)



EXISTENTIAL DIALECT

SETTLEMENT GENESIS

The Tswana first *dwelled* here and had strong spiritual ties with the *place* and the fountain. A promotional pamphlet of the Northern Transvaal notes: "Native tribal beliefs and superstitions, be it remembered, associate the smoking waters with the spirits of the great chiefs of the past" (Publicity and Travel Department South African Railways: 15).

Due to an abundance of mountain springs and fountains, the Waterberg region attracted the Trekboere who first settled in Warmbaths in the 1850s, when the springs had already become a popular refuge for the sick (Savva, Fok, Kinver, 2003: 15).

"Tradition tells that Grobler and Van Heerden (The Voortrekkers that discovered the spring at Warmbaths) noticed a huge cloud in the early morning that looked like steam covering a large territory. On closer inspection, they found it was about a mile long and about a hundred feet in breadth" (Savva et al. 2003: 16).

Thus, once the discovery was understood, they drained the marshland and discovered the eye of the spring (Savva et al. 2003: 16) radially around which settlement developed. Warmbaths was also located on the Great North Road that aimed to connect all British colonies from Cape to Cairo (Chandler, Jankelow, Livneh, 2003: 47). "Good access by means of rail and road, coupled with the spring, were the raison d'etre for the town."

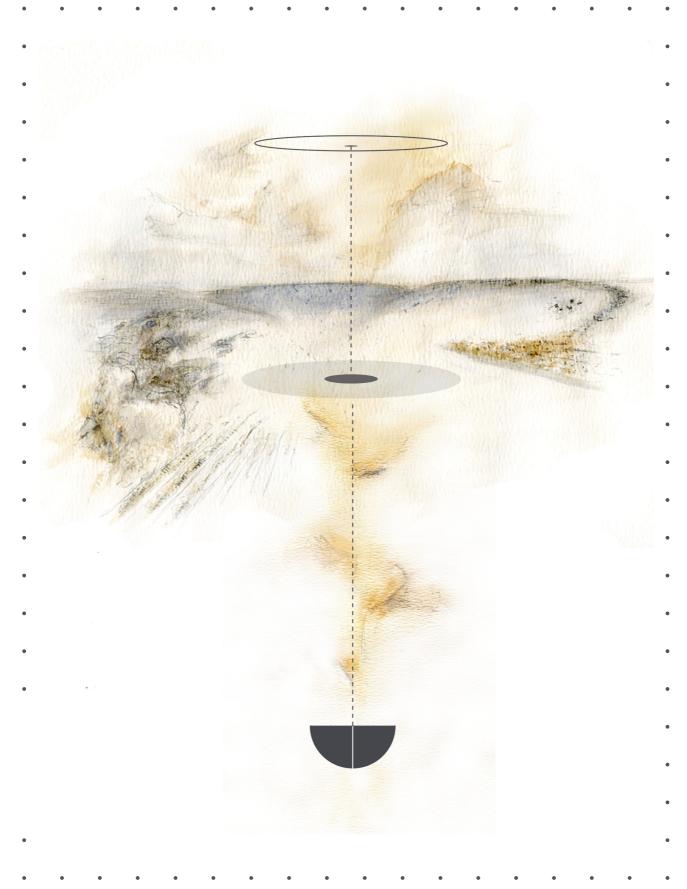
The Boers referred to it as "Het Bad", "Badplaas" and "Warmbad" and extensively patronised the baths for the health-restoring and medicinal properties of the waters (Ibid: 87). The waters and the natural splendour of the environment served as the basis for establishment of settlement around the spring and its surrounds.

Figure 3.5

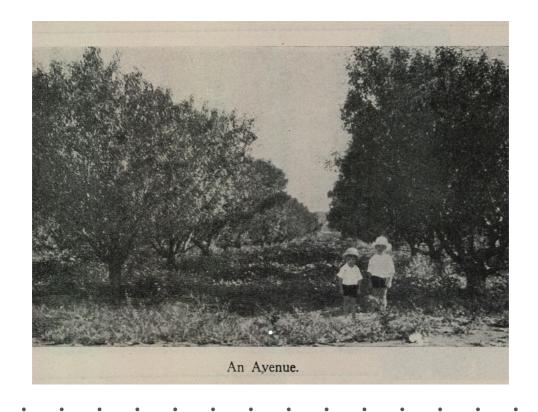
The Warmbaths fountain and enveloping natural environment as settlement genesis to the Bela-Bela township.

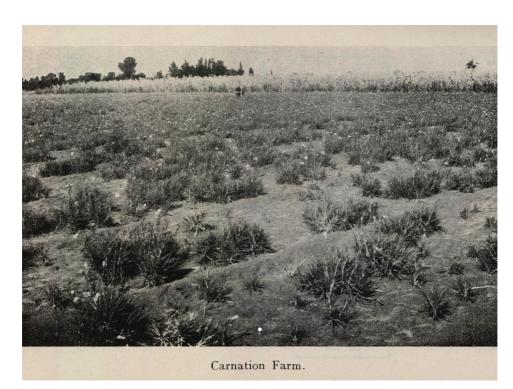
(Author 2015)









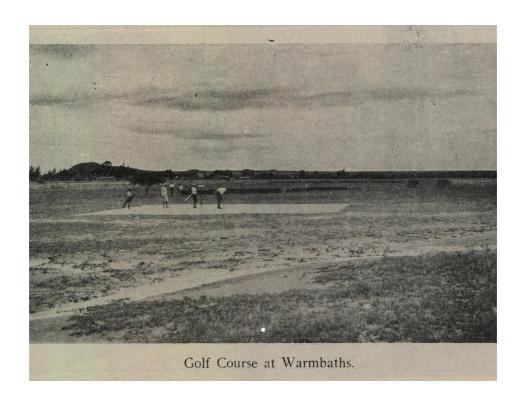


INTERNALISATION

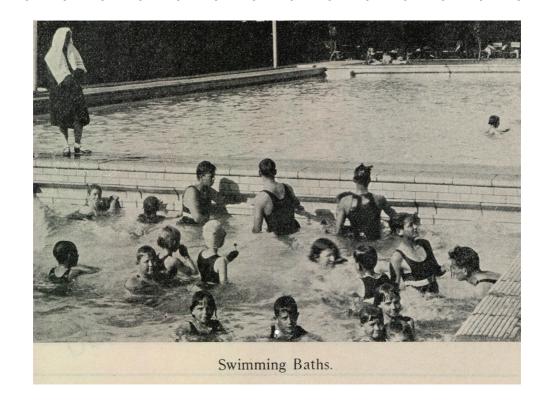
"Die bad het gou bekend geraak en Boere het met waens gekom en soms maande lank hier by die geneesende waters vertoef" (Booyens, 1981: 86). In 1872 Warmbaths was proclaimed as a township (Ibid: 87) and when Old President T.F. Burgers visited the bath in 1873 he felt compelled to liberate the bath from its authorities through its acquisition by the Volksraad, to allow the public to make use of the bath "sonder prys en sonder geld" (Ibid: 86) or free of charge. Development at the baths happened slowly, and in an attempt to encourage this much-needed development, the Volksraad established the town of Hartingsburg in 1882 (Ibid: 87). The name, however, did not have much appeal as "Warmbad" or "Warmbaths" portrayed the essence and main unique identity of the place.

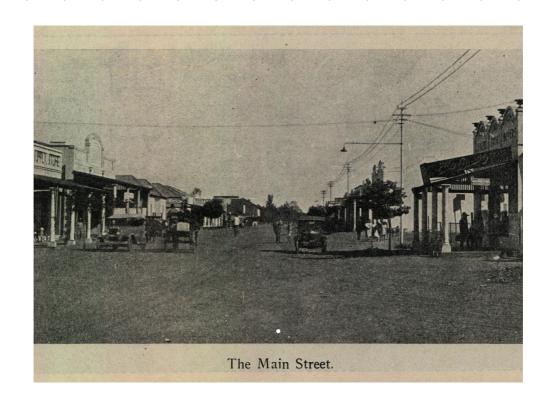
As Warmbaths gained a reputation as a health resort, it became necessary to place the institution under proper management. The *Volksraad* of the Zuid-Afrikaansche Republiek subsequently issued the "regulatiën voor den Badopzichter te Warmbad" on 2 July 1895, which outlined the regulations over the bathing facilities and the use thereof and bestowed the care therefore onto the "Badopsigter" or Bath-Custodian (Ibid: 88). By the 1900s, Warmbaths had become the "retreat and sanatorium" of the Capital and Johannesburg (Ibid: 87), major metropolises to the north, and so a hotel was erected that drew water through reticulation from the oar.

There existed a "Bronhuis" (House at the oar) and the "badhuisjes" (personal bathhouses) around pools, and two alone-standing bathhouses for those with transmittable diseases. Tents of visitors were to be located away from the facilities and their access routes and a separate pool were formalised for the washing of clothing (Ibid: 88). Alongside these facilities, a hotel and the transient tent settlements of the fleeting visitors from the Metropolises were the first settlement formations around the fountain.



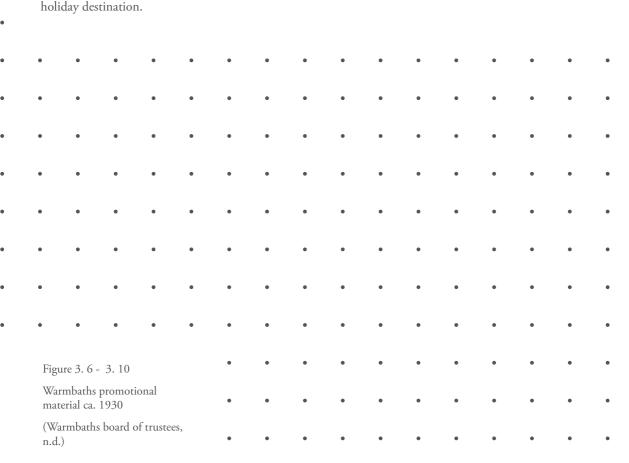






CONSOLIDATION

- During the South African War (1899-1902), the Boer commandos sought refuge in the therapeutic and hygienic baths and fled there in dire times (89). However, by the end of the war, the baths had been destroyed; neither the British nor the Boers took control over the land, and the facilities and the pools became watering pits for horses (*De Volkstem*, 1921).
- Finally, the British gained control over Hartingsburg after the war and changed the post-office name to 'Warmbaths' (Savva, Fok, Kinver, 2003: 18). After the war Mr Robertson, the newly appointed Administrator of the Transvaal, instructed efforts towards improving the baths and their condition (Savva et al., 2003: 18).
- These efforts proved fruitful as the town started to develop. The hotel was taken over by Sutter and Van Hees, and was the only hotel in Warmbaths for many years after the war (McCord, 1950: 3). A proclamation
- from April 1905 states that Warmbaths (since then the name Hartingsburg disappeared altogether) is to be extended over more portions of the farm 'Het Bad' (Warmbaths Brochure, 1959: 3).
 - In 1920 Warmbaths was re-proclaimed as a township (Potgieter, 1976: (11) 321; Savva et al., 2003: 20). It was administered by a health committee from 1923 and it became a municipality in 1932 (Potgieter, 1976:
- (11) 321). The erven for the re-proclaimed town of Warmbaths were advertised in *De Volkstem* and to be auctioned on the 2nd of November 1921 at 10 am in the Pretoria Town Hall (*De Volkstem*, 1921). A plan of the town and drawings of new bathing facilities under construction heralded in this Afrikaans Journal (Savva
- et al., 2003:21). After that, the town developed rapidly with new settlers arriving and the town thriving as a holiday destination.



WARMBATHS

A GARDEN CITY

During the early 20s, town planning-initiatives commenced for the establishment of the Warmbaths Township (Savva et al., 2003:20). Such plans are illustrated in the delicate project that proposed a settlement pattern reminiscent of the Garden City Model plan by Ebenezer Howard of the period.

This plan, thought to precede the final surveyor general's diagram in 1921 (Savva et al., 2003:20), situates the centre of the town just northeast of the fountain and the facilities, with sites zoned for public and recreational use, including the facilities as an extension to the central garden, around its core.

Surrounding this first public spatial radial is another radial of erven earmarked for residential development to the north, with the provision for public sector development along the east-west axis extending alongside the facilities. This development axis terminates with the CBD and at the railway station, with green and recreational spaces and facilities integral to this axis and sector. Recreational facilities, green spaces and the CBD would thus be firstly accessed from the major railway and road transportation interchanges.

One thus finds the public sector intertwined and interchangeable, animated by recreation and green spaces, extending along an east-west axis with the facilities and the fountain at the heart of this axis. This axis furthermore demarcates a development boundary to the south of the town, so that the fountain and its enveloping recreation facilities would preside upslope of the natural environment to the south.

The proposed residential development, in radial towards the north, clusters dwelling erven around central gardens and includes a public park with attractions and public usages where the radial intersect the east-west axis. Beyond this radial, another similar spatial radial exists, but includes sites for schools and terminates with a park to the east and the natural environment.

Roads inhabit the radials in triangular form and radiate from the nucleus (and not the fountain), undulating where it enters from the west. A grand avenue extends south, from a school site in the north, past sites for public offices and the town hall opposite one another, to a central square, which splits the geometry of the town, enveloped by public facilities and terminates in the south with the major approach axis of the railway.

CADASTRAL PLAN

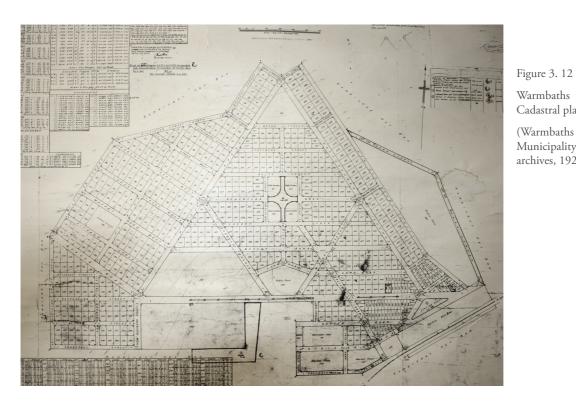
The Triangular plan of Warmbaths can be ascribed to the land-surveyor WH Gilfillan. In 1921, he surveyed the region and devised the triangular plan measuring 220 morgen and 538.67 squares. Roods, Savva et al. (2003: 20) note that land speculation, rather that compositional clarity, appears to have driven the plan, resulting in many of the urban components to the Garden City plan proposal being abandoned.

The formal plan lacks the public heart and civic centre, while many green spaces and sites zoned for recreation have been replaced by saleable erven. The cadastral plan made for an effective transfer of land, however, it stripped the character of the proposal from a public and civic sphere that was animated by the water and natural landscapes. The cemetery and the resort dominating over the south remained features of the new plan.





Figure 3. 11 Warmbaths Garden City plan (Warmbaths Municipality archives ca 1921, n.d.)



Warmbaths Cadastral plan (Warmbaths Municipality archives, 1921)



THE BATHING AND RECREATIONAL FACILITIES

FIRSTACT

The early developments around the spring were formalised into the first resort during 1921 with the commencement of the planning of new swimming baths, changing facilities and a hall (Lacovig, 2003: 174). The development represented a significant public investment intended to attract private sector development (Ibid: 174), as well as residential inhabitancy of the newly laid out township with the fountain, the baths and the gardens at its physical and metaphysical nucleus.

SECOND ACT

In 1933 the Board of Mineral Baths was formed which controlled the Warmbaths mineral baths along with the others of the Witwatersrand region (Ibid: 174). The town saw a substantial growth and by the 1960's the facilities received considerable investment in its mineral baths (Ibid: 174). The modernisation of the facilities (Fig.) accommodated a variety of luxurious activities and inhabited the central heart of the town. The traveller's accommodation at the resort extended into the town's grain and tied the resort to the town by accommodating visitors with baths alongside the existing hotels at the inner core of the town. The hierarchies of use and segregated "white" and "non-white" site localities of the facilities intended, are indicative of the spirit of the times.

THIRD ACT

By the middle 60s these improvements proved insufficient and a large investment in the facilities came into works (Ibid: 175). A master plan was developed, which entailed an outdoor pool area in a garden setting, as well as the Hydro complex containing indoor and outdoor pools (Ibid: 176). The Hydro Spa (David Brink Centre) was the first to be constructed. By 1978 (ibid:176), when the centre was opened to the public, new admission and reception buildings to the resort had been built, and a perimeter wall was being planned (Fig.).

FOURTH ACT

The early 80's saw the development of a master plan for the outdoor pool area in the garden setting. This plan included various outdoor water facilities such a slides and pools, but also included a hotel inside the facilities, which meant "the holiday-maker had no need to even leave the resort" (Ibid: 184). The facilities pertaining to the master plan were constructed up until 1986 before it opened to the public (Ibid: 184). Ever since the late 80s, only a few additions have been made compared to earlier ventures. A ski boat dam and Caribbean bungalows were constructed (Ibid: 184), along with the inclusion of more land to intertwine a game reserve with the facilities.

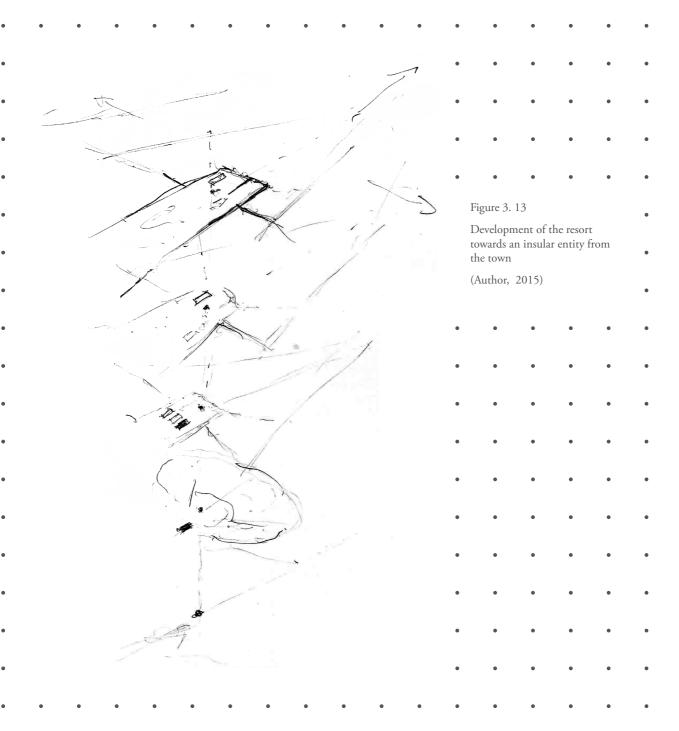
FIFTH ACT

The perimeter condition of the resort has been in an evolving state in response to the urban and social conditions of the town. As the resort transformed from public-owned, to semi-private/public, to private ownership over time, the facilities have retracted inwards onto the site. It is now bordered off from the town's urban core by a wall or fence, with the reception and admissions buildings serving as the only dialect the entire nucleus serves with the urbanity.

EXTERNALISATION



The urban core: the fountain; the facilities; the gardens and the pools have evolved from integral part, and responsive core, to the town's fabric towards an inwards orientation catering only for tourism. Apart from the recreational usage and job creation, the resort and its boundary conditiont have no relationship with the urbanity, local conditions and local components.



VIOLENT COLLISIONS

In 1922 the Stallard Commission recommended "That permanent residence in the town was the exclusive right of the whites" (Fisher 1998: 157; Feliciano, Hart, Mayat, Sherman., 2003: 42) and in 1923 the doctrine had been integrated into the Natives (Urban Areas) Act (Fisher 1998: 158; Feliciano et al., 2003: 42). While rigorous measures were employed to segregate other social and racial classes during early town establishment periods in South Africa, Warmbaths saw nearly all principals of segregating spatial planning employed in its character by the Apartheid regime. "Apartheid city planning is marked by a number of features which, read in a historical context, could be interpreted as part of a segregationist residential policy. Taken as a whole, however, they fall into a pattern that reveals a wider ideological intent" (Frescura, 2015).

Apart from Warmbaths Proper (the triangle) being inhabited solely by the white residency, natural barriers and existing infrastructure could be utilised as socio-spatial barriers between them and the other racial classes (Feliciano et al., 2003: 42). These characteristics employed within Warmbaths are summarised in the figure 3.14.

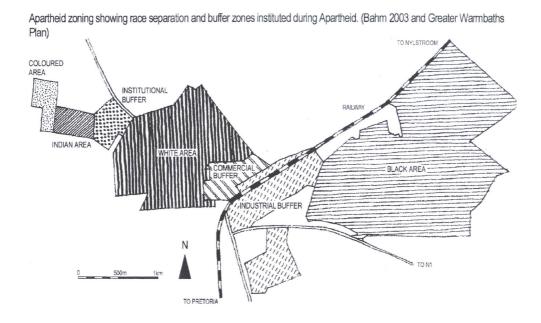


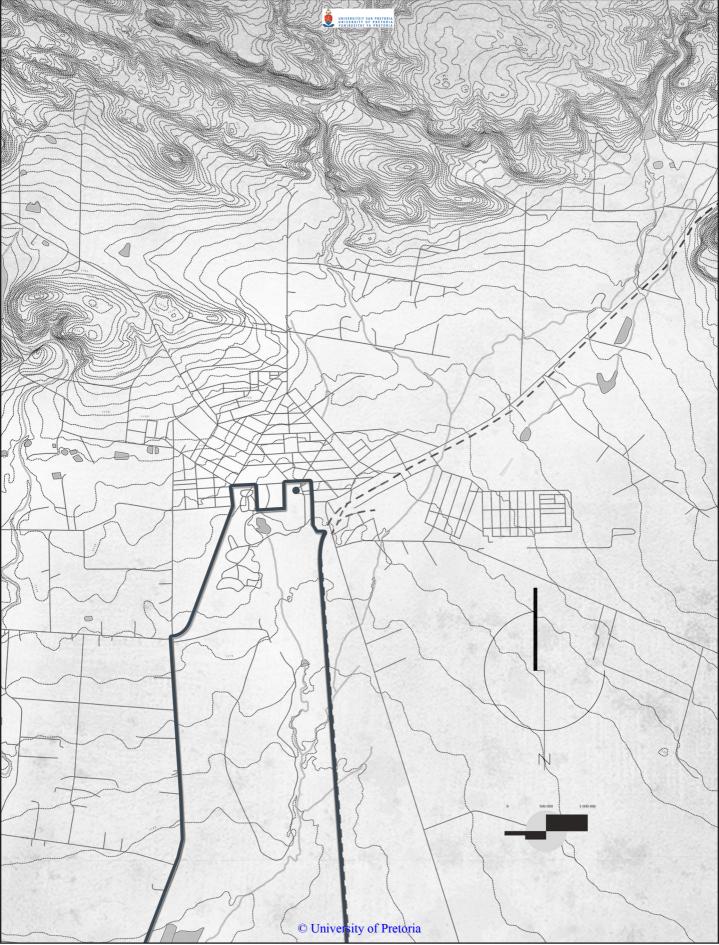
Figure 3. 14

Apartheid zoning for the town establishment of Warmbaths

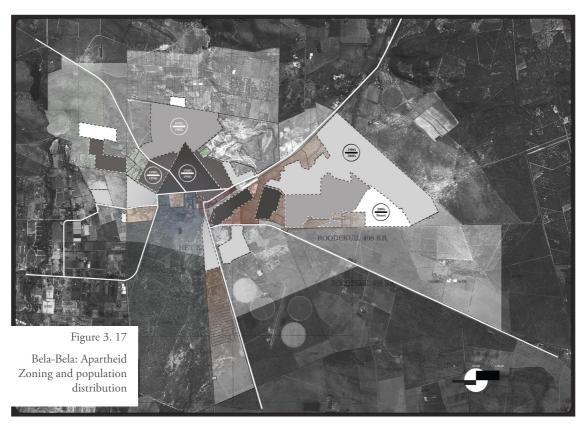
(Feliciano et al, 2003)

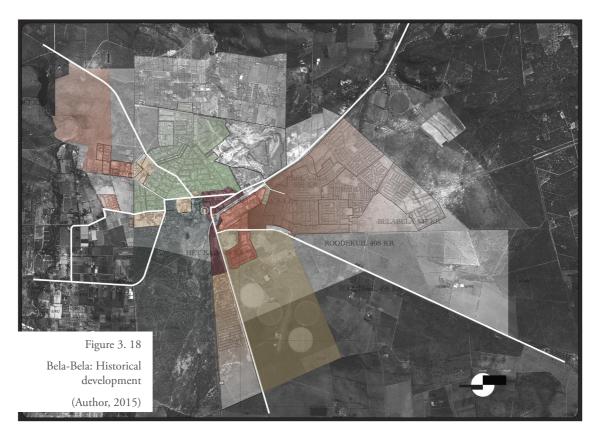
Figure 3. 15

The boundary of the resort (Author, 2015)



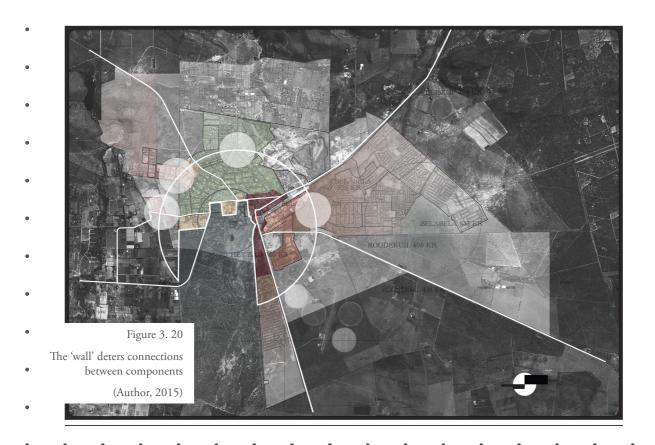












DETERRENCE – THE 'WALL'

Deterrence is a very peculiar form of action: It is what causes something not to take place. It dominates the whole of our contemporary period that tend not to produce too many events as to cause something not to occur (Baudrillard and Poster, 2001: 256).

These collisions still preside today, demarcating and determining access and opportunity between races, classes and social hierarchies. In the absence of an urban condenser, residential development sprawls over productive rural land. The unresponsive boundary 'wall' to the facilities serves as deterrence to 'transactions' between urban components and a compact form at the centre of the town. It deters cohesion to the urban core, and also the dialect between the urbanity that exists and the central gardens with the fountain at the core. It furthermore deters connections with the naturally rich extended environment by guarding off the open gardens and fountain at the nucleus of Bela-Bela, which serve as the gateway to the natural hinterland of the region. The process of deterrence ultimately fends of tourism in the region too.

The urban conditions of the town are exeplified in the Authors mapping fig 3.14 - 3. 20.

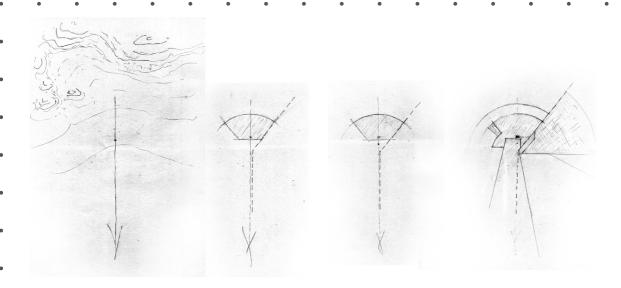


Figure 3. 21

The town, conceived as integral with the fountain and central gardens, has evolved into independent entities where the spatial fabric of the town restricts connectsions and associations.

(Author, 2015)

